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ABSTRACT

This study represents a further attempt to establish the long-term predictive validity of teachers' grade 1 early identification (EID) ratings by relating them to students' educational status and performance on standardized tests of ability and achievement in grade 7. (EID ratings consist of a simple scale that ranks a student's preparedness for the work of the next school year.) In addition, relationships between the measures taken in grades 4 and 7 are described. All 2,771 students who enrolled in grade 1 during the 1978-79 school year and for whom EID ratings were available were included in the study. For some analyses, only those students who were present for standardized tests in both grades 4 and 7 were included. Results indicate a substantial relationship between the grade 1 ratings and students' subsequent status and test performance in both grade 4 and grade 7. Because the study did not include test data for students who had either been retained or enrolled in a special class, the underlying strength of the relationships described has probably been somewhat underestimated. Almost 30 percent of the original grade 1 cohort left the system. Of those remaining, slightly over 80 percent made normal progress. (RH)

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EARLY IDENTIFICATION SYSTEM:
SIX-YEAR FOLLOWUP OF THE GRADE 1 CLASS OF 1978-79

R. G. Stennett Ph.D.

Research Report 85-03

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EARLY IDENTIFICATION SYSTEM:
SIX-YEAR FOLLOWUP OF THE GRADE 1 CLASS OF 1978-79

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During the 1978-79 school year an Early Identification (EID) process, based primarily on teachers' judgements, was applied in Kindergarten and grade 1. In the two subsequent years, the process was extended to cover grades 2 and 3 and has been applied regularly in grades K to 3 since that time. During these years a number of reports (Stennett & Earl, 1978, 1979, 1980, 1981, 1982, 1983) have described the results of the EID process and provided some evidence of its concurrent and predictive validity. This study represents a further attempt to establish the long-term predictive validity of the teachers' Grade 1 EID ratings[1] by relating them to students' educational status and performance on standardized tests of ability and achievement in Grade 7. In addition, relationships between the measures taken in grades 4 and 7 on this cohort of students are also described.

METHOD

Sample

All 2771 students who enrolled in grade 1 during the 1978-79 school year and for whom Early Identification (EID) ratings were available were included in the study. For some analyses only those students who were present for standardized tests in both grades 4 and 7 are included.

Followup Procedures and Availability of Data

The following procedures were used to ensure that as many as possible of the grade 1 class of 1978-79 were located during the 1984-85 school year and that as much relevant data as possible was collected:

(1) Using the computer file for the 1981-82 followup study of this cohort as a base (Stennett & Earl, 1982), results of the system-wide, October 1984 admin-

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[1] EID ratings, made by classroom teachers and school teams separately for language/reading and mathematics, consist of a simple scale, as follows:

0 = insufficient contact with student to make a judgment
1 = student will be ready, by the end of the school year, for the work of the next school year
2 = student *may not be ready*, by the end of the school year, for the work of the next school year
3 = it is *quite certain* that the student *will not be ready*, by the end of the school year, for the work of the next school year.

During the initial year of the EID system, a single combined rating for both language and mathematics was used.

istration of the Canadian Tests of Basic Skills (C.T.B.S.) Reading Comprehension (RDG) subtest, the London Mathematics Computation (LM) and Problem Solving (MPS) tests and the Otis-Lennon School Ability Test (OLSAT) were added to the file for each student who took these tests.

(2) A review of class lists for all grade 6 and 7 students was used to locate all students in regular classes who were not located by step 1 above.

(3) Class lists for all students enrolled in special education classes were consulted to locate any students not found by steps 1 and 2 above.

(4) Prior year (1983-84) system-level testing files were consulted to locate students who had been accelerated.

(5) Students not found by the above four steps were presumed to have left the system.

One limitation of this study is that it does not contain standardized ability and achievement measures for any student who has repeated one or more grades or is currently enrolled in a special class. Additional analyses, including such data, at least for students repeating a grade, will be done during 1985-86.

The study is also limited because it does not include data regarding any remedial intervention that may have been provided for 'high risk' pupils. The estimates of the predictive validity of the EID ratings are, therefore, likely to be somewhat conservative...to the extent that the remedial interventions have been successful.

Study Variables

The following variables were included in the analyses reported in this paper: early identification ratings for language and mathematics combined for 1978-79 and separate ratings for reading and mathematics for the subsequent two years; a code indicating each student's educational status (at grade level, repeating, in special class, left the system) for the fall of 1981 and the fall of 1984; students' scores on standardized system-wide ability and achievement tests in grades 4 and 7, and a summary type of EID score. This latter score was simply the sum of the student's five EID ratings, pro-rated for any missing values.

Data Analyses

Data analyses consisted primarily of computing frequency and percentage frequency distributions for all variables by grade 1 EID ratings and calculating correlations among the study variables. All analyses were conducted by computer using the standard programs contained in SPSSX.

RESULTS

Educational Status, 1981 & 1984

Tables 1(a) and 1(b) give, respectively, the 1981 and 1984 educational status of *all* of the students in the grade 1 class of 1978-79 and of *those still in system* in 1981 and 1984.

As is evident from Table 1(a), over one quarter (28.7%) of the original cohort of students have left the system. The majority (58.4%) have made normal or better progress and the remainder are either retarded one or more grades (7.0%) or are in a special class (5.9%).

Table 1(b) shows the 1981 and 1984 status of those students remaining in the system at those points in time. Of these students, the great majority (82.1%) have made 'normal' or better progress and the remainder have either been retained one or more years (9.8%) or are in a special class (8.2%). Over the three years from 1981 to 1984 there has been a slight decrease in the proportion of students who are at or above grade level (83.3% to 82.1%) and a corresponding increase in the proportion of students repeating or in a special class (16.6% to 18.0%).

Educational Status in Relation to Grade 1 EID Rating

Table 2 gives the educational status, in 1981 and 1984, for those students still in the system at those points in time, by grade 1 EID rating.

An examination of the figures in this table shows a strong relationship between grade 1 EID rating and educational status in both 1981 and 1984. For example, in 1981 the percentage of students with a grade 1 EID rating of 1 who were at or above grade level is 95%, while the percentage of those with a grade 1 EID rating of 3 is only 16%. Comparable figures for 1984 are 91.8% and 21.9%.

The relationship between grade 1 EID rating and educational status is slightly stronger for 1981 than for 1984, almost certainly because of the shorter time interval between the EID ratings and the 1981 assesment of status (3 years vs. 6 years).

Table 3 gives a distribution of students' status in 1984 by their status in 1981. It is clear from these figures that the educational status of most students (88.1%) has not changed over this three-year period. The primary changes in status have involved a number of students who were at grade level in grade 4 either repeating a grade or being enrolled in a special class. Some students who had been retained by grade 4 have subsequently either moved to a special class or been put on an individual educational plan (IP) in a regular class. A smaller number of students have moved, with an IP, from special class to a regular class.

Achievement and Ability

Table 4 gives the mean achievement and mean ability standard scores[2] in grades 4 and 7, by grade 1 EID rating, for those students in the 1978-79 grade 1 cohort who made 'normal' educational progress. The extent of the true test differences among students with varying grade 1 EID ratings is, of course, significantly under-estimated in these figures because data for students who had either repeated a grade or been enrolled in special classes were not included.

It is, however, quite clear that students with a grade 1 EID rating of either 2 or 3 performed significantly less well, on both ability and achievement tests in both grade 4 and grade 7, than did students with an EID rating of 1. These differences in test performance are substantial (about .8 standard deviation units) and of about the same size at both grades 4 and 7.

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[2] The system mean standard score is 60, and the standard deviation is 10.

Correlations Among Study Variables

Correlations of grade 4 and grade 7 standardized tests with one another and with the EID summary score (page 4) are given in Table 5. It should be noted that all of the Pearson product-moment correlations under-estimate the true strength of the relationships among the variables because: (a) the sample of students upon which they are based does not include repeating or special class students and (b) the distribution of the EID summary score is highly skewed (for example, 60% of all students have the same EID summary score).

An examination of the data contained in Table 5 indicates that: (1) the correlations between scores on related achievement and ability tests over a three-year interval are moderate in size (.51 to .70); (2) the correlation between achievement and ability tests and the summary EID score are moderate to low and (3) the longer the time interval between EID ratings and standardized testing, the lower the correlations.

These findings reinforce the contentions that repeated testing is advisable and that standardized tests permit better prediction of probable student success than teacher ratings.

SUMMARY

This paper describes the grade 4 and grade 7 educational status and standardized ability and achievement test performance of the grade 1 class of 1978-79. The educational status and test data, presented separately by grade 1 early identification school test ratings, indicate a substantial relationship between the grade 1 ratings and students' subsequent status and test performance in both grade 4 and grade 7. Since the study did not include test data for students who had either been retained or enrolled in a special class, the underlying strength of the relationships described has probably been somewhat under-estimated.

Almost 30% of the original grade 1 cohort has left the system. Of those remaining, slightly over 80% have made normal progress.

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Table 1(a) Educational status of the entire Grade 1 class of 1978-79 as of the fall of 1981 and the fall of 1984

Status	1981		1984	
	N	%	N	%
At grade level	1777	63.7	1562	56.0
At grade on IP	0	0.0	59	2.1
Accelerated	7	.3	7	.3
Retained	242	8.7	195	7.0
In Special Class	114	4.0	163	5.9
Left System	648	23.3	802	28.7
Total	2788	100.0	2788	100.0

Table 1(b) Educational status of those students in the Grade 1 class of 1978-79 still in the system in 1981 and 1984.

Status	1981		1984	
	N	%	N	%
At grade level	1777	83.0	1562	78.7
At grade on IP	0	0.0	59	3.0
Accelerated	7	.3	7	.4
Retained	242	11.3	195	9.8
In Special Class	114	5.3	163	8.2
Total	2140	99.9	1986	100.1

Table 2 Educational status of those students in the Grade 1 class of 1978-79 still in the system in 1981 and 1984, by Grade 1 EID Rating

Status	GR. 1 EID RATING											
	1				2				3			
	Status 81		Status 84		Status 81		Status 84		Status 81		Status 84	
	N	%	N	%	N	%	N	%	N	%	N	%
At or above grade	1573	95.0	1397	90.6	176	60.9	145	55.6	30	16.0	21	12.1
At grade on IP	0	0.0	19	1.2	0	0.0	23	8.8	0	0.0	17	9.8
Retained	55	3.3	66	4.3	81	28.0	59	22.6	104	55.6	66	38.2
In special class	28	1.7	60	3.9	32	11.1	34	13.0	53	28.3	69	39.9
Totals	1656	100.0	1542	100.0	289	100.0	261	100.0	187	99.9	173	100.0

Table 3 Status of students in 1984, by their status in 1981

Status in 1981	Status in 1984			
	In Grade 7	Retained	In Special Class	On IP in Regular Class
In grade 4	1466	46	44	13
Retained	7	119	39	24
In special class	7	2	66	17

Table 4 Mean achievement and mean ability standard scores in grades 4 and 7, by grade 1 EID rating, for the grade 1 class of 1978-79.

Test Variable	1978-79 Grade 1 EID rating					
	1		2		3	
	Grade 4	Grade 7	Grade 4	Grade 7	Grade 4	Grade 7
CTBS - Reading	61.2	60.3	52.2	51.5	52.3	52.3
CTBS - Usage	61.3	-	53.1	-	51.0	-
London Math	61.0	61.0	52.5	53.4	52.3	53.5
Math Problem S.	61.0	61.5	53.3	54.3	53.8	53.4
Total Average*	61.2	60.9	52.7	53.7	52.6	52.8
OTIS, OLSAT	61.1	61.7	51.7	54.0	49.6	52.1
Number of cases	1504	1343	224	137	98	19

* Total Average is the simple average of the 3 or 4 achievement subtests.

The system standard score mean is set at 60 and the standard deviation at 10.

Table 5 Correlations of grade 4 and grade 7 standardized tests with one another and with the EID summary score

Test Variable	Grade 4 vs. Grade 7	Grade 4 vs. EID Sum.	Grade 7 vs. EID Sum.
Reading	.58	.47	.32
Usage	-*	.43	-
London Math (computation)	.59	.46	.33
Math Problem Solving	.51	.39	.36
Total Average	.75	.54	.42
IQ	.70	.52	.38

* C.T.B.S. Usage subtest was not administered in 1984.